

# Three Phase Inverters for the 277/480V Grid For North America

SE30KUS / SE40KUS



## The best choice for SolarEdge enabled systems

- Specifically designed to work with power optimizers
- Quick and easy inverter commissioning directly from a smartphone using SolarEdge SetApp
- Fixed voltage inverter for superior efficiency (98.5%) and longer strings
- Built-in type 2 DC and AC Surge Protection, to better withstand lightning events
- Small, lightest in its class, and easy to install outdoors or indoors on provided bracket
- Integrated arc fault protection and rapid shutdown for NEC 2014 – 2023, per articles 690.11 and 690.12
- Built-in module level monitoring with Ethernet, wireless, or cellular communication for full system visibility
- Integrated safety switch
- UL1741 SA and SB certified, for CPUC Rule 21 grid compliance

# / Three Phase Inverters for the 277/480V Grid<sup>(1)</sup> for North America SE30KUS / SE40KUS

MODEL NUMBER	SE30KUS	SE40KUS	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXK-USX8IXXXX		UNITS
<b>OUTPUT</b>			
Rated AC Power Output	30000	40000	W
Maximum Apparent AC Output Power	30000	40000	VA
AC Output Line Connections	3W + PE, 4W + PE		
AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-N)	244 – 277 – 305		Vac
AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-L)	422.5 – 480 – 529		Vac
AC Frequency Min-Nom-Max <sup>(2)</sup>	59.3 – 60 – 60.5		Hz
Maximum Continuous Output Current (per Phase)	36.25	48.25	Aac
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes		
Total Harmonic Distortion	≤ 3		%
Power Factor Range	+/- 0.85 to 1		
<b>INPUT</b>			
Maximum DC Power (Module STC)	52500	70000	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC+ to DC-	1000		Vdc
Operating Voltage Range	840 – 1000		Vdc
Maximum Input Current	36.25	48.25	Adc
Maximum Input Short Circuit Current	55		Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	167kΩ Sensitivity <sup>(3)</sup>		
CEC Weighted Efficiency	98.5		%
Night-time Power Consumption	<4		W
<b>ADDITIONAL FEATURES</b>			
Supported Communication Interfaces	2 x RS485, Ethernet, Cellular (optional)		
Inverter Commissioning	With the SetApp mobile application using built-in access point for local connection		
Arc Fault Protection	Integrated, User Configurable (According to UL1699B)		
Rapid Shutdown	NEC 2014 – 2023, built-in		
RS485 Surge Protection Plug-in	Supplied with the inverter, built-in		
DC Surge Protection	Type II, field replaceable, built-in		
AC Surge Protection	Type II, field replaceable, built-in		
DC Fuses (Single Pole)	25A, built-in		
Smart Energy Management	Export Limitation		
VAR at Night <sup>(4)</sup>	Yes		
<b>DC SAFETY SWITCH</b>			
DC Disconnect	Integrated		
<b>STANDARD COMPLIANCE</b>			
Safety	UL 1741, UL 1741 SA, UL 1741 SB, UL 1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07		
Grid Connection Standards	IEEE 1547-2018, Rule 21, Rule 14 (HI)		
Emissions	FCC Part 15 Class A		
<b>INSTALLATION SPECIFICATIONS</b>			
AC Output Conduit Size / AWG Range	¾" or 1" / 6 – 10 AWG		
DC Input Conduit Size / AWG Range	¾" or 1" / 6 – 12 AWG		
Number of DC Inputs Pairs	4		
Dimensions with Safety Switch (H x W x D)	31.8 x 12.5 x 11.8 / 808 x 317 x 300		in / mm
Weight with Safety Switch	78.2 / 35.5		lb / kg
Cooling	Fans (user replaceable)		
Noise	< 62		dBA
Operating Temperature Range	-40 to +140 / -40 to +60 <sup>(5)</sup>		°F / °C
Protection Rating	NEMA 3R		
Mounting	Bracket provided		

(1) For 120/208V inverters refer to the [Three Phase Inverters for the 120/208V Grid for North America](#) datasheet.

(2) For other regional settings please contact SolarEdge support.

(3) Where permitted by local regulations.

(4) For details, see [Set Volt-Ampere at Night – Application Note](#).

(5) For power derating information refer to the [Temperature Derating](#) technical note for North America.